USDA Agricultural Marketing Service Pesticide Data Program Federal/State Meeting
February 20-22, 2018
Crystal City, Virginia

Day 1: February 20, 2018

Welcoming Remarks
Melissa Tharp, Acting Deputy Administrator, Science & Technology (S&T), Agricultural Marketing Service (AMS), USDA, welcomed everyone to the meeting and facilitated individual introductions.

EPA Guest Speaker
Richard Keigwin, Director, Office of Pesticide Programs (OPP), U.S. Environmental Protection Agency (EPA), welcomed the attendees and emphasized EPA's reliance on data produced by the Pesticide Data Program (PDP) to further its pesticide reregistration efforts. Mr. Keigwin discussed the Pesticide Registration Improvement Act (PRIA) and how it augments EPA's budget. Fees collected through PRIA now account for one-third of EPA OPP's budget. EPA's OPP is very busy with over 700 active ingredients (AIs) up for re-evaluation by October 22, 2018. A number of draft risk assessments are out for comment and many more are coming.

PDP Administrative/Budget Issues
Diana Haynes, Director, Monitoring Programs Division (MPD), S&T, AMS, USDA, introduced MPD's newest addition, Ms. Christina Kasmer. Ms. Kasmer is a PDP Chemist and is the liaison for the Ohio laboratory.

The Federal government is operating on a Continuing Resolution through March 23, 2018. Once a final budget is passed, full Cooperative Agreements for Fiscal Year (FY) 2018 will be issued. In the meantime, MPD is watching States' budgets closely and issuing partial agreements as needed. Once a final budget is passed, MPD will seek supplemental funds for equipment and other needs in the States. The program is hoping for a stable budget for FY 2018 and FY 2019. *Note: Since the meeting, a full FY 2018 budget was passed and States will be issued final Cooperative Agreements for FY 2018.*

The 2016 PDP Annual Summary was published February 8, 2018 to the PDP website. Printed copies will be available at a later date. Data for calendar year 2017 are due no later than March 31, 2018.

MPD Chemist liaisons for the laboratories are as follows:

- California and the AMS National Science Laboratory (NSL): Dr. Shanker Reddy
- Florida and Michigan: Sitra Abubeker
- New York: Chris Pappas
- Ohio: Christina Kasmer
- Texas and Washington: Jonathan Senn-Carter

MPD will focus on sampling reviews this year. Upcoming reviews are scheduled for Colorado, Florida, Michigan, and New York.

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FY 2017 was a busy year for the program. A large number of high profile accomplishments were achieved including:

- Deployment of the PDP Database Search App online: This app allows users to perform a custom web-based search for residue data across all years of the program. The app can be accessed from any PDP Website page and was developed in-house by MPD and AMS' Information Technology (IT) group.
- Contribution of PDP data to the World Health Organization (WHO)/Codex Alimentarius for inclusion in the Global Environment Monitoring System (GEMS) database: The data will be used to benchmark and support international Maximum Residue Levels (MRLs) as Codex seeks to revise the International Estimated Short-Term Intake (IESTI) equation that helps to determine MRLs. This effort is vital to U.S. trade overseas.
- Capitol Hill briefing by the American Chemical Society (ACS): Based on presentations by PDP, EPA, FDA, and USDA's FSIS at the 254th ACS National Meeting Symposium in August 2017, ACS provided a briefing to Capitol Hill staffers on food safety issues in October 2017. The briefing highlighted each agency's role in providing continuous oversight of pesticides to ensure the food consumed by U.S. citizens is safe.
- Data used to facilitate trade of U.S. chicken eggs overseas. PDP provided egg data to AMS' Livestock, Poultry and Seed Program (LPS). The data were used to address current worldwide concerns about eggs being contaminated with the insecticide fipronil. None of the 1,036 PDP egg samples tested in 2010-2011 contained fipronil and the information was used by LPS to assist in trade negotiations with South Korea and Hong Kong.
- Outreach: MPD staff performed a number of outreach efforts in area schools and community colleges. The presentations and panel discussions were well-received and informed students about agriculture, chemistry, and potential careers in these areas.
- Community Donations: Over 10,000 pounds of perishable, fresh product were donated to local food banks and shelters by the PDP States.
- Sampling: Certificates of Appreciation were issued to all sampling sites. The Site Invitation Letter was revised and translated into Spanish and Mandarin. Sampling Managers are using the Blue Book as a measure of site size and to help identify sites to invite to program.
- Technical: Mass Spectrometry (MS) User Groups were formed for MS/MS instruments/software used by the program. Discussion groups were set up on the PDP Extranet and MPD is working to set up information sharing sessions via Adobe Connect. The purpose of the groups is for PDP scientists to pool information, techniques, and ideas to enhance and harmonize instrument use across the program.
- Grower Notifications: MPD is now notifying grower groups of new commodities entering the program. This is in response to a recommendation received at the 2016 PDP Stakeholder Meeting and is increasing PDP's connections with the agricultural community.

PDP Program Planning

Current PDP commodities are: asparagus, cabbage, cranberries (fresh & frozen), garbanzo beans (canned), green onions, kale, mangoes, olives (canned), peaches (canned), plums (dried prunes), raisins, snap peas, sweet potatoes, and wheat flour.

On April 1, 2018, sweet potatoes will be replaced with kiwi. Kiwi will be in the program two years and will be analyzed by the Michigan laboratory. Additionally, cranberries rotate from fresh/frozen to canned on April 1st. Canned collection will continue through September 2018.

There are no changes planned for July 1, 2018.

On October 1, 2018, the following commodities will exit the program and need to be replaced: cranberries (fresh/frozen/canned), canned garbanzo beans, mangoes, canned olives, and dried plums/prunes.

On January 1, 2019, the following commodities will exit the program and need to be replaced: green onions, kale, peaches (canned), raisins, snap peas, and wheat flour.

Based on preliminary discussions with EPA at the meeting, probable incoming commodities include: additional varieties of canned/dried beans and canned olives, basil/cilantro (six-month study of each – 300 samples each), collard or mustard greens to replace kale, Brussels sprouts, bananas, rice, oats, and celery. Other potential commodities include hot peppers, radishes, pears (canned), lemons or limes, cashews or walnuts, garlic, or leeks. PDP also would like to add heavy cream to the program when funding permits.

Additional program planning will be discussed at the March 2018 PDP Conference Call. *Note: The March 2018 Conference Call was canceled due to D.C. weather conditions. Program planning issues will be discussed in another upcoming PDP Conference Call.*

PDP Sampling Program
Chris Pappas, MPD Sampling Manager, provided an update on PDP sampling activities. For kiwi, gold or green fuzzy kiwifruit is the only acceptable product. Kiwiberries (aka hardy kiwi, cocktail kiwi) are not an acceptable product. Availability is not expected to be an issue. The target sample size is 3 pounds and all samples will be sent to the Michigan laboratory.

Beginning April 1st, canned cranberries replace fresh/frozen cranberries. This change allows PDP to collect another type of cranberry product and avoid late season availability issues. Whole berry or jellied canned cranberry sauce is the only acceptable product. Acceptable ingredients include: citric acid, corn syrup, high fructose corn syrup, sugar, and water. Organic products may contain lemon juice concentrate. The target size is 28 ounces and all samples go to the Texas laboratory.

Unbleached white all-purpose wheat flour is now an acceptable product. If the collected sample is greater than 2x the target size (5-lb), the collector may subsample. Sampling Managers were reminded that the subsampled weight must meet the target weight acceptability criteria (±20%). When the sampling Standard Operating Procedure (SOP) is revised (July 2018) subsampling procedures from the GOODSamples document will be incorporated.

PDP collected over 99% of the targeted samples in calendar year 2017. Considering the number of extremely seasonal commodities, this is a testament to the dedication of the samplers and cooperation of the testing laboratories.

EPA Crop Groups
Dr. Bernie Schneider, Health Effects Division (HED), EPA, provided an overview of EPA's Crop Groups, their history and how they relate to Codex Crop Groups. Dr. Schneider discussed current and upcoming work including the Herb and Spice Group and efforts to harmonize with Canada's Pest Management Regulatory Agency (PMRA).

IR-4 – Partners in Facilitating Lower Risk Pest Management Options for Specialty Crops
Dr. Deborah Carpenter, Interregional Research Project Number 4 (IR-4), USDA, gave an overview of the IR-4 program and its work to obtain registrations for specialty crops. Crop groupings are a critical tool for the registration of crop protectant chemicals for specialty crops. Dr. Carpenter discussed IR-4's work with EPA on crop groupings and provided the following link with regard to crop groups: [HYPERLINK "http://ir4.rutgers.edu/Other/CropGroup.htm"].

U.S. Environmental Protection Agency Activities
David Hrdy, HED, EPA, provided an overview of ongoing activities at EPA and discussed potential commodities for PDP.

U.S. Food and Drug Administration Update
Chris Sack, Center for Food Safety and Applied Nutrition (CFSAN), U.S. Food and Drug Administration (FDA), provided an update on FDA activities in pesticide surveillance and monitoring.

USDA Foreign Agricultural Service Activities
Dr. Loren LaPointe, Foreign Agricultural Service (FAS), USDA, provided an overview of FAS's work in facilitating overseas trade and discussed how PDP's data is influential in promoting trade.

Day 2: February 21, 2018

PDP Results for Split Commodities
Sitra Abubeker, MPD Chemist, presented results on data analysis of spinach. Spinach was in the program from January 2015 through December 2016. It was split for testing between the New York and Michigan laboratories. The analysis was a comparison of the priority compounds detected by both laboratories. The results indicate that both New York and Michigan labs were able to detect similar compounds and presumptive tolerance violations with the same sample origin.

USDA Office of Pest Management Policy Update
Dr. Sheryl Kunickis, Director, Office of Pest Management Policy (OPMP), USDA, presented an overview of OPMP activities and how they relate to PDP. Dr. Kunickis also provided a look at

pesticide issues including worker protection safety and training and upcoming draft risk assessments.

Global Environment Monitoring System and International Estimated Short-Term Intake (IESTI) Developments

Dr. Cheryl Cleveland, BASF, and representing CropLife International, provided an update on recent developments with the World Health Organization (WHO)/Codex Alimentarius Global Environment Monitoring System (GEMS) database and the revision of the International Estimated Short-Term Intake (IESTI) equation. Dr. Cleveland gave the group an in-depth view of the importance of PDP data to the proposed revision of the IESTI equation and benchmarking of MRLs that govern international trade.

Cumulative Aggregate and Risk Evaluation System New Generation Update

Bruce Young, Bayer CropScience, presented an update on the Cumulative Aggregate and Risk Evaluation System (CARES) New Generation (NG). This is a cloud-based probabilistic model used by risk assessors to input residue and consumption data to estimate aggregate and cumulative exposure to pesticides. The CARES NG project is a not-for-profit initiative by multi-stakeholders to advance aggregate and cumulative exposure and risk modeling methods and capabilities for the benefit of the scientific, regulatory, and public interest communities.

Honey and Neonicotinoid Pesticides

Dr. Shanker Reddy, MPD Chemist, presented a comparison of studies on honey and the presence of neonicotinoids. A citizen science-based European (Swiss) study that appeared in the October 2017 issue of Science showed extremely low levels of 5 neonicotinoids in 22 samples from North America. Although the low levels detected were not expected to be significant with regard to human health effects, the Science paper generated a good deal of interest among U.S. bee keepers. PDP tested more than 1,000 samples for six widely used neonicotinoids. Methods for sample collection (collection, shipping and storage, chain of custody, and use of statistical methods) and analysis for the Science study and the PDP work were compared. It was observed that the major differences in type of samples and sample collection could have contributed to the very low number of positives in the European study samples. While the U.S. samples were collected from retail stores and were filtered for pollen and wax and pasteurized, the European study samples were local and contained wax, pollen, etc. During the meeting, the standards set for the Limits of Detection (LODs) for the neonicotinoids also were discussed, which also may have affected the difference in results between the two studies.

Remote Data Entry and Extranet Update

Roger Fry, MPD Database Manager, gave a presentation on the Remote Data Entry (RDE) system. USDA expects the legacy Web-based RDE system, used by labs, to be retired in 2018. All samplers are now using the RDE e-SIF V5.0 software - the last two samplers that were still using the old V4.1 software installed the upgrade with direct help from MPD last week. If needed, the upgrade is an easy process that requires overwriting 3 files on the sampler's computer.

MPD is currently developing a local/distributed RDE system that will be installed at each lab to replace the centralized Web-RDE system. The local RDE system requires MS-Access 2010 or later to be installed on the laboratory computers that will run it. The target completion date for the new, local RDE system is the end of April 2018. The target retirement date for the Web-RDE system is the end of June 2018. A list of reasons for the move away from the centralized Web-RDE system to a distributed RDE system was presented, including compatibility issues with new operating systems and browsers, ongoing problems with the import and reporting components, restrictive USDA eAuthentication requirements for Web-based applications, and the expected high cost for developing a new Web-based system.

A demo was given of the completed features in the new local/distributed RDE system, including spreadsheet-style data entry screens for sample information, analytical results, and process control data. MPD will send text files holding e-SIF records and look-up table updates to the lab for import into the local RDE system. The local RDE system will accept the import of the current RDEImport database structure, allowing time for laboratories to modify their LIMS-to-RDE data bridges to generate the RDEImport database using the updated table structures. MPD will plan to make lab visits for local RDE installation and training at the California and Texas laboratories that will be using it for full data entry of PDP data.

Milton Bonilla, MPD IT Specialist, presented an update on the PDP Extranet Site. Recent modifications to the document library structures and clean-up activities were described. A demo of new and changed features was provided. MPD staff must still request account/password resets if users are locked-out. Users can reset their own password ahead of the 90-day expiration using a function on the main PDP Extranet page. The temporary password provided during the reset action cannot be changed for the next 24 hours. USDA-AMS plans to upgrade the SharePoint platform that hosts the Extranet site, but no firm date has been established. This upgrade will change how user accounts are handled. Users will need a USDA eAuthentication Level-1 account that can be requested with an online form, with no visit to a USDA service center required. The existing XNET account will no longer be used. All account/password resets will be handled by the eAuth Help Desk, which should be faster than the current service.

PDP Sampling Breakout Session

Chris Pappas, Sampling Manager, Roger Fry, Database Administrator, and Christina Kasmer, Chemist, led a sampling breakout session with the State Sampling Managers. Site relations were discussed. The Sampling Managers reported that most sites are still willing to participate and site closings and relocations are the major reasons sites leave the program. MPD asked if the Vendor Appreciation certificates are still useful and the Sampling Managers all agreed they were. Site recruitment was also discussed. Most States use the Blue Book in combination with information from the samplers to identify and recruit new sites. It was suggested to use competiveness when recruiting reluctant sites. For example, mention that the sites' main competitor participates. The Site Invitation letter is available in English, Spanish, and Mandarin and will be issued for comments so a new revision can be issued. Assignment of site volume info was addressed. Currently, States are using a combination of information to assign volume to the sites. Sampling Managers were reminded that the volume info is extremely important in the probability-

proportional-to-size model used for site selection. Other sources of information (such as bonded value) was discussed. MPD will investigate to see if USDA's Perishable Agricultural Commodity Act (PACA) program has information that can be used.

PDP Technical Breakout Session
Sitra Abubeker, MPD Chemist, and Diana Haynes, MPD Director, led a technical breakout session with the Technical Program Managers (TPMs) and Quality Assurance Officers (QAOs). The session began with a follow up discussion from the last Federal/State meeting on changing the MS ion ratio criteria in PDP-DATA SOP, section 7.4.2.3. The decision was made to adopt the SANCO ion ratio criteria of +/- 30% Relative. In addition to changing the ion ratio criteria, contraindication language for analyte confirmation and example calculation will be added to clarify this section further.

Updates on the MS User Groups was provided by the group leads. The groups continue to make progress discussing various topics and sharing information. There have been some issues however with the data sharing analysis process amongst the labs. The current tools that are available such as the Extranet or conference calling are not feasible. To address this issue Brittany Holmes (Washington) presented a live Adobe Connect data analysis demonstration. MPD believes this to be a useful tool and would like to make it available to the user groups for web meetings. Instructions on accessing Adobe Connect will be sent out to the leads at a later date.

At the last Federal State meeting, MPD encouraged labs to send representatives to attend the North American Chemical Residue Workshop (NACRW). The laboratories indicated that the workshop is very informative and expressed interest in attending again this year. MPD will send out a letter to the laboratories requesting that they send representatives to the workshop. An informal PDP meeting will be scheduled for the MS Users Group at the workshop.

The group also shared how each laboratory manages standard preparation; custom mixes purchased from vendors versus in-house mixes; and selectivity methods used to compare standards. Methods used to ensure standard stability in quantifying residues were also discussed.

Day 3: February 22, 2018

Tolerance Table Update
A new tolerance table was issued on January 31, 2018 that included kiwi, a new commodity introduced into the program. The values are from the e-CFR, US Tolerance Tracker (formerly known as the Pesticide Chemical News Guide), and Global MRL database. Laboratories should notify MPD of any discrepancies. The next revision is scheduled to be released in October 2018. The group indicated that they would like MPD to retain the explanatory footnotes in the tolerance table.

Presumptive Tolerance Reporting Update
Jonathan Senn-Carter, MPD Chemist, discussed the Presumptive Tolerance Violation (PTV) Report that MPD disseminates on a monthly basis. The report includes sample information and pesticide information related to the reported PTVs. The accompanying Sampling Report includes Confidential Business Information (CBI), which cannot be used for regulatory purposes. The Organic Detects report shows positive detections and violations on commodities that have been designated as organic. Similarly, CBI sampling information accompanies this report. In addition, the group learned who receives these reports, how to receive these reports, and how to receive State-specific versions of these reports.

SOP Revisions
Sitra Abubeker, MPD Chemist, provided an update on the FY 18 SOP revision schedule. The SOPs that will be up for revision include DATA in April 2018, LABOP in July 2018, and ADMIN in October 2018. The PDP-QC SOP was revised in February 2018. Requests for changes to SOPs may be submitted at any time by sending an email to Sitra Abubeker and copying Diana Haynes.

Proficiency Testing Program
The FY 2018 PDP Proficiency Testing (PT) program was discussed. Michigan noted that their recent FAPAS sample had difficulties passing through customs. It was received late (February 21, 2018), was not acceptable for analysis, and will not be reported.

For FY 2019, a vegetable round is planned for Fall 2018 and a fruit round for Summer 2019. Both rounds will be issued by the California Department of Food and Agriculture (CDFA) Quality Assurance Unit (QAU). PDP will participate in a FAPAS round in early 2019. The final PT schedule will be discussed in an upcoming PDP Conference Call once the FAPAS 2019 schedule is available.

PDP Sampling Breakout Session
Roger Fry, MPD Database Manager, and Christina Kasmer, MPD Chemist, presented what has been accomplished thus far for the Train-the-Trainer Manual for Samplers. Last year's breakout session was used to first develop an outline for the three-year project. A newly updated outline was presented to the group and improvements were discussed.

Ms. Kasmer displayed two single-page infographics to be used as an overview of PDP for new samplers. The Sampling Managers will start using these when training samplers and asked if they could also be used for site recruitment and program outreach. MPD was happy to agree to those additional uses.

Mr. Fry and Ms. Kasmer displayed the Training Manual folder structure that matches the completed outline on the PDP Extranet site, then opened and explained each of the training documents that have been completed for the first two of six major sections of the Training Manual. Mr. Fry explained that the Extranet site is a good location for storing the Training Manual content as it is being built because it allows Sampling Managers to access and download completed documents. He went on to state that the Extranet site, in its current version, would probably not

be a good platform for new samplers to access the Training Manual because of user account requirements. When the Training Manual is complete, MPD will distribute the content in folder structures that match the outline on CD/DVD to each Sampling Manager. The State will be able to copy the Training Manual content to agency computers or distribute copies of the CD/DVD.

Nathan Chambers, Washington Sampling Manager, developed a PDP Training Video Script covering sample labeling, packing, and data recording. After the final editing, he will send out the script to the Sampling Managers for feedback. A Washington sampler has agreed to film the training videos following the written script.

The group agreed that the goals to be accomplished for the upcoming year will be the completion of content for the next two major sections of the manual along with several training videos.

PDP Technical Breakout Session
Jonathan Senn-Carter, MPD Chemist, and Chris Pappas, MPD Sampling Manager/Chemist, facilitated a technical breakout session with the TPMs and QAOs. The session focused on reviewing and discussing the different ways that the laboratories generate data packages.

The session began with discussion of the new local/distributed RDE system developed by MPD. The capabilities of the new system were shown to simplify and improve efficiency of creating data packages, interesting many group participants in future implementation of various system tools. Another discussion topic was in-house standard verification and ion ratio confirmation criteria reporting. Some laboratories preferred handwritten notes, deviations, and information, while other preferred standardized checkboxes and data sheets. Participants also noted how the MS User Groups are helping them move towards more automation and importing of data. An example of these new changes includes the coalescence of retention time, integrity, and calibration data forms and legacy documents into new, succinct formats.

The group desired additional discussion and a platform to continue sharing data package information. MPD will facilitate the uploading of laboratory data packages to the Extranet for further review and collaboration. Technical presentation of laboratory data packages during monthly Conference Calls were also suggested.

Committee Elections
Saeed Akhtar (NY) and Karen Stephani (NY) were presented with Certificates of Appreciation for their service during FY 2018 as Presiding Members of the Sampling Advisory Group (SAG) and Technical Advisory Group (TAG), respectively. Barbara Sparkman (TX) was elected to the SAG, joining Don Gallegos (CO) and Nathan Chambers (WA). Frank Barretta (MI) was elected as the new TAG member, joining Gail Parker (FL) and Hugh Robinson (TX). Don Gallegos will serve as Presiding Member of the SAG, while Gail Parker will serve as Presiding Member of the TAG.

Meeting Wrap Up
Wrap-up slides were presented and are available on the Extranet. Next year's meeting is being planned for April-May 2019 in Tallahassee, Florida.

The meeting was adjourned for lunch and a tour of the EPA Analytical Chemistry Branch laboratory in Fort Meade, MD.